INDEX TO VOLUME XII

ALFALFA plant. I. The calcium, phosphorus, and nitrogen metabolism of dairy cattle, The physiological effect of rations restricted principally or solely to the..... 445
American Dairy Science Association, Proceedings of the annual meeting of the..... 507
ANDEREGG, L. T., and HAMMER, B. W. Proteolysis by *Streptococcus lactis*..... 114

BABCOCK and the Mojonnier methods for butterfat in ice cream, A comparison of the modified..... 473
Bacteria in milk, The comparative accuracy of the direct microscopic and agar plate methods in determining numbers of..... 304
Bacterial count of ice cream held at freezing temperatures, The..... 182
Bacteriological methods for condensed, evaporated, and dry milk of the American Dairy Science Association, Progress report of sub-committee on..... 374
(Bacteriology) A study of the proteolytic action of specific organisms and groups of organisms in butter made from graded cream..... 1
(Bacteriology) Proteolysis by *Streptococcus lactis*..... 114
Baer, Arthur Christopher, 1884–1929..... 191
BARTLETT, J. W., and BENDER, C. B. A study of the factors affecting the growth of dairy heifers. Part II..... 37
BECKER, R. B., and MCGILLIARD, P. C. A suggested simplification of the present system of official testing with the dairy breeds of cattle..... 337
BENDER, C. B. (See Bartlett, J. W.)..... 37
BENTON, ANNE G. Variations in the milk from different quarters of the same udder; their significance in studies of coagulability..... 481
Book Review..... 419
BRANDT, P. M. (See Haag, J. R.).. 445
Breeds of cattle, A suggested simplification of the present system of official testing with the dairy..... 337
BREW, JAMES D. The comparative accuracy of the direct microscopic and agar plate methods in determining numbers of bacteria in milk..... 304
Bromthymol blue milk test and the methylene blue reduction test for determining quality of milk, A comparison of the..... 367
BUCHANAN, J. H., and LOWMAN, O. E. Seasonal variations in the freezing point of milk..... 484
Butter made from graded cream, A study of the proteolytic action of specific organisms and groups of organisms in..... 1
Butter, The mold and yeast count as an index of the keeping quality of..... 351
Butterfat in ice cream, A comparison of the modified Babcock and the Mojonnier methods for..... 473
Butterfat percentage and milk yield, Effect of heat (oestrum) on..... 464
BUTTON, FORREST C. (See Mueller, William S.)..... 320

BUTTON, FORREST C. (See Russell, Walter C.)..... 231

CALCIUM phosphate in fresh milk. The solubility of..... 405
Calves, Further studies on the rôle of vitamin C in the nutrition of... 394
CARODEMOS, P. P. (See Miscall, J.) 379
Cattle, A suggested simplification of the present system of official testing with the dairy breeds of.. 337
Cattle, Effect of cottonseed meal and linseed oil meal on the consistency of feces of dairy..... 410
Cattle, The physiological effect of rations restricted principally or solely to the alfalfa plant I. The calcium, phosphorus, and nitrogen metabolism of dairy... 445
CAULFIELD, W. J. (See Martin, W. H.)..... 193
CAVANAUGH, G.W. (See Miscall J.) 379
CHASE, E. S., and KING, F. G. A comparison of the modified Babcock and the Mojonnier methods for butter fat in ice cream..... 473
Cheese, A color defect of process. 377
Cheese, The relation of hydrogen-ion concentration to the texture of Emmenthal or Swiss..... 289
Citric acid and sodium citrate in starter cultures, The use of..... 21
Coagulability, Variations in the milk from different quarters of the same udder; their significance in studies of..... 481
Color defect of process cheese, A. 377
COPELAND, LYNN. Effect of heat (oestrum) on butterfat percentage and milk yield..... 464
Copper in dairy products and its solution under varying conditions. II..... 379
Copper in powdered whole milk, The nutritional value of..... 90
CORDES, W. A. (See Hunziker, O. F.).....140, 252
Corrosion caused by washing powders, chemical sterilizers, and refrigerating brines, Metals in dairy equipment..... 252
Corrosion in milk products and its effect on flavor, Metals in dairy equipment..... 140
Cottonseed meal and linseed oil meal on the consistency of feces of dairy cattle, Effect of..... 410
Cow's urine, The ovarian hormone content of pregnant..... 491
Cream, A study of the proteolytic action of specific organisms and groups of organisms in butter made from graded..... 1
Cream mixtures when homogenized, Some factors affecting the fat clumping produced in milk and..... 211

DAHLBERG, A. C. (See Hening, J. C.)..... 129
Dairy products and its solution under varying conditions. II. Copper in..... 379
DEVEREUX, E. D. A comparison of the bromthymol blue milk test and the methylene blue reduction test for determining quality of milk..... 367
DEYSHER, E. F., WEBB, B. H., and HOLM, GEORGE E. The relations of temperature and time of forewarming of milk to the heat stability of its evaporated product..... 80
DOAN, F. J. Some factors affecting the fat clumping produced in milk and cream mixtures when homogenized..... 211
DOWNS, P. A. Progress report of sub-committee on bacteriological methods for condensed, evaporated, and dry milk of the American Dairy Science Association..... 374

ECKLES, C. H. (See Thurston, L. M.)..... 394
Egg products in the manufacture of ice cream, The use of dehydrated..... 320
Egg yolk in ice cream, The use of... 193
Equipment, Corrosion caused by washing powders, chemical sterilizers, and refrigerating brines, Metals in dairy..... 252
Equipment, Metallic corrosion in milk products and its effect on flavor, Metals in dairy..... 140
Escherichia coli and *Serratia marcescens* to survive 62.8°C., for thirty minutes in milk, The ability of..... 202
Evaporated product, The relations of temperature and time of forewarming of milk to the heat stability of its..... 80

FARRALL, A. W. The application of steam for heating and sterilizing dairy equipment..... 95
Fat clumping produced in milk and cream mixtures when homogenized, Some factors affecting the. 211
Fat production of Guernsey cattle, The relation between weight and..... 60
Feces of dairy cattle, Effect of cottonseed meal and linseed oil meal on the consistency of..... 410
Flavor, Metals in dairy equipment. Metallic corrosion in milk products and its effect on.. 140
Forewarming of milk to the heat stability of its evaporated product, The relations of temperature and time of..... 80
FOUTS, E. L. A study of the effectiveness of sodium hypochlorite in sterilizing creamery equipment..... 51
Freezing point of milk, Seasonal variations in the..... 484

GERDEMAN, ALICE E. (See Weinzirl, John)..... 182
Growth of dairy heifers, Part II, A study of the factors affecting the..... 37
Guernsey Cattle, The relation between weight and fat production of..... 60

HAAG, J. R., JONES, J. S., JONES, I. R., and BRANDT, P. M. The physiological effect of rations restricted principally or solely to the alfalfa plant. I. The calcium, phosphorus, and nitrogen metabolism of dairy cattle. 445
HAMMER, B. W. (See Anderegg, L. T.)..... 114
HASTINGS, E. G. Book review.... 419
Heat (oestrum) on butterfat percentage and milk yield, Effect of..... 464
Heat stability of its evaporated product, The relations of temperature and time of forewarming of milk to the..... 80
Heifers. Part II, A study of the factors affecting the growth of dairy..... 37
HENING, J. C., and DAHLBERG, A. C. The effects of certain salts on the physical properties of ice cream mixes..... 129
HERRINGTON, B. L. (See Whitaker, Randall)..... 456
HOLM, GEORGE E. (See Deysher, E. F.)..... 80
Homogenized, Some factors affecting the fat clumping produced in milk and cream mixtures when.. 211
Hormone content of pregnant cow's urine, The ovarian..... 491
HUFFMAN, C. F., and MOORE, L. A. Effect of cottonseed meal and linseed oil meal on the consistency of feces of dairy cattle..... 410
HUGHES, J. S. (See Titus, R. W.). 90

HUNZIKER, O. F., CORDES, W. A., and NISSEN, B. H. Metals in dairy equipment. Metallic corrosion in milk products and its effect on flavor..... 140
HUNZIKER, O. F., CORDES, W. A., and NISSEN, B. H. Metals in dairy equipment. Corrosion caused by washing powders, chemical sterilizers, and refrigerating brines..... 252
Hydrogen-ion concentration to the texture of Emmenthal or Swiss cheese, The relation of the..... 289
Hypochlorite in sterilizing creamery equipment, A study of the effectiveness of sodium..... 51

ICE cream, A comparison of the modified Babcock and the Mojonnier methods for butterfat in..... 473
Ice cream held at freezing temperatures, The bacterial count of..... 182
Ice cream mixes, The effects of certain salts on the physical properties of..... 129
Ice cream mix to its basic viscosity, A device for reducing an..... 285
Ice cream, the antirachitic value of irradiated..... 231
Ice cream, The use of egg yolk in... 193
Ice cream, The use of dehydrated egg products in the manufacture of..... 320

JONES, J. R. (See Haag, J. R.)..... 445

KAHLENBERG, ORME J. (See Russell, Walter C.)..... 231
KING, F. G. (See Chase, E. S.).. 473
KOESTLER, G. A. (See Roadhouse, C. L.)..... 421
KRAUSS, W. E. Studies on the nutritive value of milk. I. The production of nutritional anemia in albino rats through exclusive whole milk diets..... 74
KRAUSS, W. E. Studies on the nutritive value of milk..... 242
KRAUSS, W. E. Studies on the nutritive value of milk. III. The supplementary value of various constituents of synthetic basal rations..... 438

LINSEED oil meal on the consistency of feces of dairy cattle, Effect of cottonseed meal and... 410
LOWMAN, O. E. (See Buchanan, J. H.)..... 484

MACY, H., and RICHIE, H. B. The mold and yeast count as an index of the keeping quality of butter..... 351
MARTIN, W. H., and CAUFIELD, W. J. The use of egg yolk in ice cream..... 193
MCGILLIARD, P. C. (See Becker, R. B.)..... 337
Metals in dairy equipment, Metallic corrosion in milk products and its effect on flavor..... 140
Metals in dairy equipment, Corrosion caused by washing powders, chemical sterilizers and refrigerating brines..... 252
Methylene blue reduction test for determining quality of milk, A comparison of the bromthymol blue milk test and the..... 367
Milk, A comparison of the bromthymol blue milk test and the methylene blue reduction test for determining quality of..... 367
Milk, an unappreciated but important factor in the pasteurization of..... 385
Milk and cream mixtures when homogenized, Some factors affecting the fat clumping produced in..... 211

Milk from different quarters of the same udder; their significance in studies of coagulability, Variations in the..... 481
Milk of the American Dairy Science Association, Progress report of sub-committee on bacteriological methods for condensed, evaporated and dry..... 374
Milk, Studies on the nutritive value of..... 242
Milk, The comparative accuracy of the direct microscopic and agar plate methods in determining numbers of bacteria in..... 304
Milk, The nutritional value of copper in powdered whole..... 90
Milk. I. The production of nutritional anemia in albino rats through exclusive whole milk diets, Studies on the nutritive value of..... 74
Milk, The solubility of calcium phosphate in fresh..... 405
Milk. III. The supplementary value of various constituents of synthetic basal rations, Studies on the nutritive value of..... 438
Milk taste, Contribution to the knowledge of..... 421
Milk to the heat stability of its evaporated product, The relations of temperature and time of forewarming of..... 80
Milk, Seasonal variations in the freezing point of..... 484
Milk yield, Effect of heat (oestrum) on butterfat percentage and.... 464
Miscall, J., Cavanaugh, G. W., and Carodemos, P. P. Copper in dairy products and its solution under varying conditions. II.... 379
Mojonnier milk tester for the routine determination of vanillin with preliminary discussion of the towt lead number, The use of the..... 469
Mojonnier methods for butterfat in ice cream, A comparison of the modified Babcock and the..... 473
Mold and yeast count as an index of the keeping quality of butter.. 351
Moore, L. A. (See Huffman, C. F.)..... 410
Mueller, William S., and Button, Forrect C. The use of dehydrated egg products in the manufacture of ice cream..... 320

Nibler, C. W., and Turner, Chas. W. The ovarian Hormone content of pregnant cow's urine..... 491
Nissen, B. H. (See Hunziker, O. F.).....140, 252
Nutrition of calves, Further studies on the rôle of vitamin C in the..... 394
(Nutrition) The antirachitic value of irradiated ice cream..... 231
Nutritional value of copper in powdered whole milk, The..... 90
Nutritive value of milk. I. The production of nutritional anemia in albino rats through exclusive whole milk diets, Studies on the..... 74
Nutritive value of milk, Studies on the..... 242
Nutritive value of milk. III. The supplementary value of various constituents of synthetic basal rations, Studies on the.... 438

Ovarian Hormonec ontent of pregnant cow's urine, The... 491

Palmer, L. S. (See Thurston, L. M.)..... 394
Parfitt, E. H. (See Spitzer, George)..... 1
Pasteurization of milk, An unappreciated but important factor in the..... 385

(Pasteurization) The ability of *Escherichia coli* and *Serratia marcescens* to survive 62.8°C., for thirty minutes in milk..... 202
PRICE, WALTER V. A color defect of process cheese..... 377
Proteolysis by *Streptococcus lactis*. 114
Proteolytic action of specific organisms and groups of organisms in butter made from graded cream, A study of..... 1

QUALITY of butter, The mold and yeast count as an index of the keeping..... 351
Quality of milk, A comparison of the bromthymol blue milk test and the methylene blue reduction test for determining..... 367

RATIONS restricted principally or solely to the alfalfa plant. I. The calcium, phosphorus, and nitrogen metabolism of dairy cattle, The physiological effect of..... 445
RICHIE, H. B. (See Macy, H.)... 351
ROADHOUSE, C. L., and KOESTLER, G. A. Contribution to the knowledge of milk taste..... 421
RUSSELL, WALTER C., BUTTON, FORREST C., and KAHLENBERG, ORME J. The antirachitic value of irradiated ice cream..... 231

SALTS on the physical properties of ice cream mixes, The effects of certain..... 129
Seasonal variations in the freezing point of milk..... 484
SHERMAN, J. M., STARK, C. N., and STARK, PAULINE. An unappreciated but important factor in the pasteurization of milk..... 385
SOMMER, H. H. (See Templeton, Hugh L.)..... 21
SPITZER, GEORGE, and PARFITT, E. H. A study of the proteolytic action of specific organisms and groups of organisms in butter made from graded cream..... 1
STARK, C. N. (See Sherman, J. M.)..... 385
STARK, PAULINE. (See Sherman, J. M.)..... 385
Starter cultures, The use of citric acid and sodium citrate in..... 21
Steam for heating and sterilizing dairy equipment, The application of..... 95
Sterilizing creamery equipment, A study of the effectiveness of sodium hypochlorite in..... 51
Sterilizing dairy equipment, The application of steam for heating and..... 95
Streptococcus lactis, Proteolysis by. 114
Swiss Cheese, The relation of the hydrogen-ion concentration to the texture of Emmentahl or... 289

TANNER, FRED W., and WINDSOR, MARY F. The ability of *Escherichia coli* and *Serratia marcescens* to survive 62.8°C., for thirty minutes in milk..... 202
TEMPLETON, HUGH L., and SOMMER, H. H. The use of citric acid and sodium citrate in starter cultures..... 21
Testing with the dairy breeds of cattle, A suggested simplification of the present system of official..... 337
THURSTON, L. M., PALMER, L. S., and ECKLES, C. H. Further studies on the rôle of vitamin C in the nutrition of calves..... 394
TITUS, R. W., and HUGHES, J. S. The nutritional value of copper in powdered whole milk..... 90
TOWT, L. V. The use of the Mojonnier milk tester for the routine determination of vanillin with preliminary discussion of the Towt lead number..... 469

TURNER, CHARLES W. The relation between weight and fat production of Guernsey cattle..... 60
TURNER, CHAS. W. (See Nibler, C. W.)..... 491

VANILLIN with preliminary discussion of the Towt lead number, The use of the Mojonnier milk tester for the routine determination of..... 469
Viscosimeter, A method for determination of absolute viscosity by means of the torsion pendulum..... 456
Viscosity, A device for reducing an ice cream mix to its basic..... 285
Vitamin C in the nutrition of calves, Further studies on the rôle of..... 394

WATSON, PAUL D. The relation of the hydrogen-ion concentration to the texture of Emmentahl or Swiss cheese..... 289
WEBB, B. H. (See Deysher, E. F.)..... 80
Weight and fat production of Guernsey cattle, The relation between..... 60
WEINZIRL, JOHN, and GERDEMAN, ALICE E. The bacterial count in ice cream held at freezing temperatures..... 182
WHITAKER, RANDALL. A device for reducing an ice cream mix to its basic viscosity..... 285
WHITAKER, RANDALL, and HERRINGTON, B. L. A method for determination of absolute viscosity by means of the torsion pendulum viscosimeter..... 456
WHITTIER, E. O. The solubility of calcium phosphate in fresh milk..... 405
WINDSOR, MARY F. (See Tanner, Fred W.)..... 202

YEAST count as an index of the keeping quality of butter, The mold and..... 351